



„VICTOR BABES“ UNIVERSITY  
OF MEDICINE AND PHARMACY  
FROM TIMISOARA



# 9<sup>th</sup> European Section Meeting of the International Academy of Cardiovascular Sciences



october  
4 | 7  
2023

## PROGRAMME & ABSTRACT BOOK

**Editura „Victor Babeș”**

Piața Eftimie Murgu nr. 2, cam. 316, 300041 Timișoara

Tel./ Fax 0256 495 210

e-mail: [evb@umft.ro](mailto:evb@umft.ro)

[www.umft.ro/editura](http://www.umft.ro/editura)

**Director general: Prof. univ. emerit dr. Dan V. Poenaru**

**Colecția: MANIFESTĂRI ȘTIINȚIFICE**

**Coordonator colecție: Prof. univ. dr. Danina Muntean**

**Referenți științifici: Prof. univ. dr. Lucian Petrescu  
Prof. univ. dr. Dan Gaiță**

**Indicativ CNCSIS: 324**

© 2023 Toate drepturile asupra acestei ediții sunt rezervate.

Reproducerea parțială sau integrală a textului, pe orice suport, fără acordul scris al autorilor este interzisă și se va sancționa conform legilor în vigoare.

**ISBN 978-606-786-341-3**



„VICTOR BABES“ UNIVERSITY  
OF MEDICINE AND PHARMACY  
FROM TIMISOARA



## 9<sup>th</sup> European Section Meeting of the International Academy of Cardiovascular Sciences

*October 4<sup>th</sup> – 7<sup>th</sup>, 2023*

**Timișoara, Romania**



## PROGRAMME & ABSTRACT BOOK

**Editors: Danina M. Muntean, Maria D. Dănilă, Adrian Sturza**

**Dear Colleagues,**

It is our great pleasure to welcome you to the **9<sup>th</sup> European Section Meeting of the International Academy of Cardiovascular Sciences (IACS-ES)**, in Timișoara, Romania.

The meeting will be held between October 4<sup>th</sup> – 7<sup>th</sup>, at "Victor Babeș" University of Medicine and Pharmacy from Timișoara, the largest medical university with international accreditation from Western Romania.

We kindly invite you to participate in this fascinating scientific meeting focusing on the following scientific topics:

*Pathophysiology and Therapeutics of Heart Failure*

*Basic and Translational Approaches in Cardiac Arrhythmias*

*Myocardial Ischemia-Reperfusion Injury: Mechanisms and Cardioprotective Strategies*

*Cardiovascular Dysfunction and Adaptation to Stress*

*Pathomechanisms and Therapeutic Targets in Cardiometabolic Diseases*

*Cardiovascular Dysfunction Due to Toxicity*

*Natural Compounds, Ageing and Cardiovascular Risk*

*Comorbidities and Novel Therapeutic Strategies in Cardiovascular Diseases*

*Cardiac Regeneration and Response to Infection*

*Novel Targets and Therapies in Cardiovascular Diseases: What Animal Models Have Taught Us?*

*Novel Biomarkers, Therapeutic Targets and Unusual Cases: What Humans Have Taught Us?*

The meeting will feature both basic science and clinical sessions, including lectures of invited speakers and free oral communications selected from submitted abstracts. It will serve as a platform for the exchange of new ideas and concepts and will offer a great educational opportunity for advancing career development of early and mid-career trainees, personal interactions and networking for all the participants.

We would like to provide the opportunity for several young investigators to present their latest research results and compete in both oral and poster sessions; we also strongly encourage the attendance of undergraduate students.

In addition to the thought-provoking conference, the organizers wish to inform you that Timișoara is one of three nominated European Capitals of Culture 2023, having as slogan a vivid message: "Shine Your Light!" and promise you lasting impressions besides the productive exchanges.

We cordially invite you to join us, shine your light at this meeting, renew old friendships, and make new ones!

With best regards,

**Prof. Danina M. Muntean, MD, PhD**  
**Chair of the Meeting**

**Honorary Chair of the Meeting: Prof. Naranjan S. Dhalla, PhD, MD (Hon), DSc (Hon)**

**President of the Meeting: Prof. Octavian M. Crețu, MD, PhD, Rector of the University**

**Main organizers, Vice Rectors of the University: Prof. Claudia Borza, MD, PhD**  
**Prof. Daniel Lighezan, MD, PhD**  
**Prof. Cristian Oancea, MD, PhD**

*If we let our own light shine, we unconsciously give other people permission to do the same. (Nelson Mandela)*

**Meeting Venue:**

“Victor Babeș” University of Medicine and Pharmacy from Timișoara  
E. Murgu Sq., nr. 2, 300041 Timișoara, Romania

**Organizing secretariat:**

**Dr. Adrian Sturza, MD, PhD - Director of the Local Organizing Committee**

**Dr. Maria D. Dănilă, MD, PhD**

Department of Functional Sciences – Pathophysiology,

Centre for Translational Research and Systems Medicine,

“Victor Babeș” University of Medicine and Pharmacy from Timișoara, Romania

E-mail: [sturza.adrian@umft.ro](mailto:sturza.adrian@umft.ro)

E-mail: [danila.maria@umft.ro](mailto:danila.maria@umft.ro)

**Organizing Committees**

**International Organizing Committee**

**Naranjan Dhalla, CEO, IACS (Winnipeg, Canada)**

**Vladimir Jakovljevic, President IACS-European Section (Kragujevac, Serbia)**

**Grant Pierce, President IACS (Winnipeg, Canada)**

**András Varró, President-Elect IACS (Szeged, Hungary)**

**Michael Czubryt, President IACS North-American Section (Winnipeg, Canada)**

**István Baczkó, Secretary General IACS-European Section (Szeged, Hungary)**

**Local Organizing Committee**

(Members and Collaborators of the Center for Translational Research and Systems Medicine,  
University Advanced Research Center)

**Oana M. Aburel**

**Maria D. Dănilă**

**Cristina A. Dehelean**

**Dan Gaiță**

**Ana Lascu**

**Ioana M. Mozoș**

**Adrian Sturza**

**Sorin Ursoniu**

## Overview of Conference Programme

<b>DAY 1 (October 4, 2023)</b> <i>Aula Magna Hall</i>	
<b>12:00 -</b>	<b>Registration – Central Lobby of the University</b>
<b>15:00 - 15:30</b>	<b>OPENING CEREMONY / WELCOME MESSAGES</b> <b>Danina Muntean (Romania, Chair of the Meeting)</b> <b>Vladimir Jakovljevic (Serbia, President of IACS-ES)</b> <b>Naranjan Dhalla (Canada, Honorary Life President of IACS)</b> <b>Grant Pierce (Canada, President of IACS)</b> <b>András Varró (Hungary, President elect of IACS)</b>
<b>15:30 - 16:00</b>	<b>IACS RECOGNITIONS:</b> <b>Presentation by Profs. Grant Pierce, Vladimir Jakovljevic, and András Varró</b> <b>1. Lifetime Achievement Award:</b> <b>Prof. Octavian Crețu</b> , Rector of "Victor Babeș" University of Medicine and Pharmacy from Timișoara, Romania <b>2. Distinguished Leadership Awards:</b> <b>Prof. Daniel Lighezan</b> , Vice-Rector for Education, "Victor Babeș" University of Medicine and Pharmacy from Timișoara, Romania <b>Prof. Claudia Borza</b> , Vice-Rector for International Affairs, "Victor Babeș" University of Medicine and Pharmacy of Timisoara, Romania <b>3. Distinguished Service Award:</b> <b>Assoc. Prof. Adrian Sturza</b> , Director of the Organizing Committee, "Victor Babeș" University of Medicine and Pharmacy of Timișoara, Romania
<b>16:00 - 16:30</b>	<b>UNIVERSITY RECOGNITIONS:</b> <b>Presentation by Profs. Danina Muntean, Daniel Lighezan and Claudia Borza</b> <b>1. Lifetime Leadership in Cardiovascular Sciences Award:</b> <b>Prof. Naranjan Dhalla</b> , University of Manitoba, Canada <b>2. Excellence in Cardiovascular Research Awards:</b> <b>Prof. Roberto Bolli</b> , University of Louisville, USA <b>Prof. Zoltán Papp</b> , University of Debrecen, Hungary <b>3. Visiting Professor Title:</b> <b>Prof. Vladimir Jakovljevic</b> , University of Kragujevac, Serbia
<b>16:30-19:00</b>	<b>PLENARY LECTURES</b>
<b>Chairs:</b>	<b>Vladimir Jakovljevic (Serbia), Danina Muntean (Romania)</b>
16:30-17:00	<b>Naranjan Dhalla Honorary Lecture</b> <b>Gerd Heusch (Essen, Germany)</b> <i>Remote Ischemic Conditioning and Its Translation</i>
17:00-17:05	Presentation of Naranjan Dhalla Honorary Lecture Award
17:05-17:35	<b>Rodolphe Fischmeister (Paris, France)</b> <i>Enhancing Cardiac Phosphodiesterase Activity: A Therapeutic Strategy in Heart Failure?</i>
<b>17:35-18:00</b>	<b>Coffee Break</b>
<b>Chairs:</b>	<b>István Baczko (Hungary), Andrei Motoc (Romania)</b>

18:00-18:30	<b>Michael Czubryt (Winnipeg, Canada)</b> <i>Scleraxis: A Master Regulator of Wound Healing and Scarring</i>
18:30-19:00	<b>Devendra Agrawal (Pomona, USA)</b> <i>Novel Therapeutic Targets to Prevent Atherosclerotic Plaque Burden and Rupture</i>
19:00 -	<b>Welcome Reception (University building - sponsored by VOLVO)</b>
<b>DAY 2 (October 5, 2023)</b> <b><i>Parallel sessions in Aula Magna Hall, Senate Hall and Iagnov Hall</i></b>	
<b>08:30-10:25</b>	<b>Session 1 – Pathophysiology and Therapeutics of Heart Failure I</b> <b><i>Aula Magna Hall</i></b>
<b>Session chairs:</b>	<b>Zoltán Papp (Hungary), Lucian Petrescu (Romania)</b>
08:30-08:55	<b>David Eisner (Manchester, UK)</b> <i>Calcium Entry Into the Ventricular Myocytes: Beyond the L-Type Calcium Current</i>
08:55-09:20	<b>Zoltán Papp (Debrecen, Hungary)</b> <i>From Myosin Activation to Myosin Inhibition for the Treatment of Cardiac Diseases</i>
09:20-09:45	<b>Coert Zuurbier (Amsterdam, The Netherlands)</b> <i>Vascular and Myocardial Effects of SGLT2 Inhibitors</i>
09:45-10:10	<b>Dan Gaiță (Timișoara, Romania)</b> <i>Is SGLT2 Inhibition the Perfect Pathway to Heart Failure Prevention?</i>
10:10-10:25	<b>Dan-Alexandru Cozac (Târgu Mureș, Romania)</b> <i>Effects Of Chronic Beta-Blockers Therapy On In-Hospital Outcomes In Patients With ST-Segment Elevation Myocardial Infarction Treated With Primary Percutaneous Coronary Intervention</i>
<b>08:30-10:25</b>	<b>Session 2 – Basic and Translational Approaches in Cardiac Arrhythmias</b> <b><i>Senate Hall</i></b>
<b>Session chairs:</b>	<b>José Jalife (Spain), Torsten Christ (Germany)</b>
08:30-08:55	<b>Torsten Christ (Hamburg, Germany)</b> <i>Engineered Heart Tissue Based on Human Induced Pluripotent Stem Cell Derived Atrial Cardiomyocytes: A Useful Model To Study Human Atrial Electrophysiology?</i>
08:55-09:20	<b>José Jalife (Madrid, Spain)</b> <i>Dysfunction of the Nav1.5-Kir2.1 Channelosome and the Mechanism of Arrhythmias in Inherited Channelopathies</i>
09:20-09:45	<b>István Baczkó (Szeged, Hungary)</b> <i>Transgenic Rabbit Models of Congenital LQT Syndromes</i>
09:45-10:10	<b>Norbert Nagy (Szeged, Hungary)</b> <i>Assessment of Cardiac Alternans in a Canine Model of Elite Exercise</i>
10:10-10:25	<b>Băraru-Bojan Iris (Iași, Romania)</b> <i>The Genetic Characteristics Associated With The Prothrombotic Condition In Individuals Diagnosed With Type 2 Diabetes</i>
<b>10:25-11:00</b>	<b>Coffee Break</b>
<b>11:00-12:55</b>	<b>Session 3 – Myocardial Ischemia-Reperfusion Injury: Mechanisms and Cardioprotective Strategies</b>

	<b><i>Aula Magna Hall</i></b>
<b>Session chairs:</b>	<b>Peter Ferdinandy (Hungary), Ranko Škrbić (Bosnia &amp; Herzegovina)</b>
11:00-11:25	<b>Naranjan S. Dhalla (Winnipeg, Canada)</b> <i>Mechanism Defects in Adrenergic Signal Transduction System in Ischemic Heart Disease</i>
11:25-11:50	<b>Peter Ferdinandy (Budapest, Hungary)</b> <i>Development of miRNA Therapeutics for Cardioprotection</i>
11:50-12:15	<b>Rakesh Kukreja (Virginia, USA)</b> <i>cGMP Signaling in Cardioprotection and Beyond</i>
12:15-12:40	<b>Ranko Škrbić (Banja Luka, Bosnia &amp; Herzegovina)</b> <i>Liraglutide, A GLP-1 Receptor Agonist, Attenuates Isoprenaline-Induced Acute Myocardial Injury via Inhibition of the Wnt/B-Catenin Signaling Pathway</i>
12:40-12:55	<b>Nevena Mihailovic-Stanojevic (Belgrade, Serbia)</b> <i>Caffeic Acid Improves Antioxidant Defense And Attenuates Oxidative Stress In Heart Of Spontaneously Hypertensive Rat</i>
<b>11:00-12:55</b>	<b>Session 4 – Cardiovascular Dysfunction and Adaptation to Stress</b> <b><i>Senate Hall</i></b>
<b>Session chairs:</b>	<b>Petr Ostadal (Czech Republic), Inna-Rabinovich-Nikitin (Canada)</b>
11:00-11:25	<b>Petr Ostadal (Prague, Czech Republic)</b> <i>Extracorporeal Membrane Oxygenation in the Therapy of Cardiogenic Shock</i>
11:25-11:50	<b>Inna Rabinovich-Nikitin (Winnipeg, Canada)</b> <i>Retinoic Acid-Related Orphan Receptors Regulate Autophagy and Cell Survival in Cardiac Myocytes During Hypoxic Stress</i>
11:50-12:15	<b>Saadeh Suleiman (Bristol, UK)</b> <i>Cardio-resilience Due to Chronic (Atherosclerosis) or Brief (Conditioning) Ischemia</i>
12:15-12:40	<b>Péter Bencsik (Szeged, Hungary)</b> <i>Immuno-Cardiovascular Diseasome: A Novel Approach to Reveal Confounding Factors Between Myocardial Infarction and Immunological Diseases</i>
12:40-12:55	<b>Jovana Joksimovic-Jovic (Kragujevac, Serbia)</b> <i>Relationship Between Hypertensive-Like Traits in a Rat Model of PCOS and Oxidative Stress</i>
<b>11:00-12:55</b>	<b>Symposium: Cardiometabolic Alterations and Regulation of the Associated Pathways in Mammalian Heart Function and Regeneration I – Iagnov Hall</b>
<b>Session chairs</b>	<b>Belma Turan (Turkey), Suresh Tyagi (USA)</b>
11:00-11:20	<b>Belma Turan (Ankara, Turkey)</b> <i>Comparisons of Pleiotropic Effects of SGLT2 Inhibition and GLP-1 Receptor Agonism on Cardiac Glucose Intolerance</i>
11:20-11:40	<b>Erkan Tuncay (Ankara, Turkey)</b> <i>The Relationship Between Cytosolic/Mitochondrial Labile Zinc Ratio and Mitochondrial Dynamics in Cardiomyocytes: Role of Znt6</i>
11:40-12:00	<b>Yusuf Olgar (Ankara, Turkey)</b> <i>Acute Action of Incretin-Based Therapeutics on Ageing Myocardium</i>
12:00-12:20	<b>Ceylan Verda Bitirim (Ankara, Turkey)</b>



	<i>Improving Stem Cell-Based Therapy in Cardiac Failure: The Effect of Estrogen on Regenerative Capacity of Cardiac Progenitor Cells</i>
12:20-12:40	<b>Aysegul Durak (Ankara, Turkey)</b> <i>GLP-1 Receptor Agonist Attenuates Ageing-Associated Cardiac Insufficiencies Through Recovery in Mitochondria</i>
12:40-12:55	<b>Anica Petrovic (Kragujevac, Serbia)</b> <i>From Forest to Healing: Development and Evaluation of Pinus Sibirica Essential Oil Based-Topical Gel for Wound Healing in Diabetic Rats</i>
<b>13:00-13:10</b>	<b>GROUP PHOTO in Front of the University</b>
<b>13:10-14:00</b>	<b>Lunch Break</b> (lunch boxes provided) <b>Work Lunch for IACS Officials in Petru Drăgan Hall</b>
14:00-15:55	<b>Session 5 – Pathomechanisms and Therapeutic Targets in Cardiometabolic Diseases</b> <i>Aula Magna Hall</i>
<b>Session chairs:</b>	<b>Denis Angoulvant (France), Vesna Vucic (Serbia)</b>
14:00-14:25	<b>Denis Angoulvant (Tours, France)</b> <i>Targeting Inflammation in Cardiovascular Diseases</i>
14:25-14:50	<b>Vladimir Jakovljević (Kragujevac, Serbia)</b> <i>Sacubitril/Valsartan Promotes White Adipose Tissue Browning in Rats with Metabolic Syndrome</i>
14:50-15:15	<b>Ramaroson Andriantsitohaina (Montpellier, France)</b> <i>NLRP3-Inflammasome Carried by Extracellular Vesicles Validates the Inflammatory Hypothesis of Atherosclerosis in Metabolic Syndrome Patients</i>
15:15-15:40	<b>Vesna Vucic (Belgrade, Serbia)</b> <i>Osteosarcopenic Adiposity - Implications for Cardiometabolic Disorder</i>
15:40-15:55	<b>Avram Vlad-Florian (Timișoara, Romania)</b> <i>Improving Mitochondrial Respiration of Human Platelets With Cell-Permeable Succinate in Metabolic Disease</i>
15:55-16:15	<b>Coffee break</b>
14:00-15:55	<b>Session 6 – Natural Compounds, Ageing and Cardiovascular Risk</b> <i>Senate Hall</i>
	<b>Monika Bartekova (Slovakia), Adrian Sturza (Romania)</b>
14:00-14:25	<b>Monika Bartekova (Bratislava, Slovak Republic)</b> <i>Role of Ageing and Metabolic Comorbidities in Beneficial Effects of Quercetin in Cardiovascular System</i>
14:25-14:50	<b>Isidora Milosavljevic (Kragujevac, Serbia)</b> <i>Melissa Officinalis as Cardioprotective Tool in Experimental Autoimmune Myocarditis</i>
14:50-15:15	<b>Ioana Mozoș (Timișoara, Romania)</b> <i>Arterial Stiffness and Cardiovascular Risk</i>
15:15-15:40	<b>Simona Drăgan (Timișoara, Romania)</b> <i>Cardioprotective Effects of Polyphenols and Future Perspectives for Functional Foods</i>
15:40-15:55	<b>Minodora Andor (Timișoara, Romania)</b> <i>Evaluation of Black Chokeberry Bio Juice Effect on Blood Pressure Levels and Endothelial Damage in Patients Under Chronic Antihypertensive Treatment (Preliminary data)</i>
15:55-16:15	<b>Coffee Break</b>

16:15-17:30	<b>Session 7 – Comorbidities and Novel Therapeutic Strategies in Cardiovascular Diseases</b> <i>Aula Magna Hall</i>
<b>Session chairs:</b>	<b>Ferenc Gallyas (Hungary), Patrycja Kaczara (Krakow, Poland)</b>
16:15-16:40	<b>Ferenc Gallyas (Pécs, Hungary)</b> <i>Protective Effect of Olaparib in Experimental Crohn's Disease</i>
16:40-17:05	<b>Patrycja Kaczara (Krakow, Poland)</b> <i>Pharmacology of Energy Metabolism to Regulate Platelet Activation</i>
17:05-17:30	<b>Ștefan Mihăicuță (Timișoara, Romania)</b> <i>Obstructive Sleep Apnea and Cardiovascular Comorbidities Might Tailor Different Pathogenetic Treatment Strategies</i>
<b>17:15-18:30</b>	<b>POSTER SESSION I (Sport Hall)</b> <b>Chairs: Thomas Jespersen (Denmark), Péter Bencsik (Hungary), Miloš Stojiljković (Bosnia &amp; Herzegovina)</b>
14:30-17:00	<i>Meeting of the MCB Editors (Ms. Aicha Hanna) – Petru Drăgan Hall</i>
<b>DAY 3 (October 6, 2023)</b> <b><i>Parallel sessions in Aula Magna Hall, Senate Hall and Iagnov Hall</i></b>	
<b>08:30-10:25</b>	<b>Session 8 – Identifying the Right Targets and Therapeutic Approaches: Uncharted Paths</b> <i>Aula Magna Hall</i>
<b>Session chairs:</b>	<b>Martin Morad (USA), András Varró (Hungary)</b>
08:30-08:55	<b>Martin Morad (Charleston, USA)</b> <i>What Are We Learning From Gene Editing of Human Ryr2 About CPVT1 Arrhythmia and Cardiac EC-Coupling?</i>
08:55-09:20	<b>Antonio Zaza (Milano, Italy)</b> <i>SERCA2a Loss vs. Gain of Function: Which Is Worse?</i>
09:20-09:45	<b>András Varró (Szeged, Hungary)</b> <i>The Electrophysiological Effect of Orange Alkaloid Hesperetin in Dog Cardiac Ventricular Preparations</i>
09:45-10:10	<b>Hector Martinez-Navarro (Oxford, UK)</b> <i>In Silico Trials in Ischemic Heart Disease: The Future of Diagnosis and Treatment</i>
10:10-10:25	<b>Muhammad Naveed (Szeged, Hungary)</b> <i>Arrhythmias Triggered By Medication: The Proarrhythmic Risk Associated With Class I Antiarrhythmics And Cannabinoids</i>
<b>10:25-11:00</b>	<b>Coffee Break</b>
<b>08:30-10:25</b>	<b>Session 9 – Pathophysiology and Therapeutics of Heart Failure II</b> <i>Senate Hall</i>
<b>Session chairs:</b>	<b>Katharine Dibb (UK), Dragoș Cozma (Romania)</b>
08:30-08:55	<b>Katharine Dibb (Manchester, UK)</b> <i>Atrial Fibrillation in Heart Failure and Ageing: Understanding the Mechanisms</i>
08:55-09:20	<b>Suresh Tyagi (Louisville, USA)</b> <i>Interoceptive Inhibition of ADAMTS1 and Angiogenic Strategy for Prevention of HFrEF</i>
09:20-09:45	<b>Ruxandra Christodorescu (Timișoara, Romania)</b>

	<i>New Trends in the Management of Advanced Heart Failure</i>
09:45-10:10	<b>Dragoș Cozma (Timișoara, Romania)</b> <i>From Left Atrial Stretch to Heart Failure</i>
10:10-10:25	<b>Niskala Alisha Annikki (Copenhagen, Denmark)</b> <i>The Role of Colchicine on Cardiac Fibrosis in a Porcine Model of Atrial Fibrillation</i>
<b>10:25-11:00</b>	<b>Coffee break</b>
<b>11:00-12:55</b>	<b>Session 10 – Cardiac Regeneration and Response to Infection</b> <b><i>Aula Magna Hall</i></b>
<b>Session chairs:</b>	<b>Roberto Bolli (USA), Grant Pierce (Canada)</b>
11:00-11:25	<b>Roberto Bolli (Louisville, USA)</b> <i>Reparative/Regenerative Cardiology: Hype vs. Reality</i>
11:25-11:50	<b>Grant Pierce (Winnipeg, Canada)</b> <i>Bacterial Infection and Cardiovascular Disease</i>
11:50-12:15	<b>Thomas Jespersen (Copenhagen, Denmark)</b> <i>In Vitro Reprogramming of Fibroblasts From Human Cadavers to Generate iPSC-Cardiomyocytes</i>
12:15-12:40	<b>Sanjiv Dhingra (Winnipeg, Canada)</b> <i>Immuno-Engineering Approaches for Cardiac Regenerative Medicine</i>
12:40-12:55	<b>Abhay Srivastava (Winnipeg, Canada)</b> <i>Development of iPSC-Based Clinical Trial Selection Platform for Patients with Inherited Metabolic and Cardiovascular Disorders</i>
<b>11:00-12:40</b>	<b>Session 11 – Cardiometabolic Diseases – From Pathophysiology to Treatment</b> <b><i>Senate Hall</i></b>
<b>Session chairs:</b>	<b>Olga Pechanova (Slovakia), Luca Constantin (Romania)</b>
11:00-11:25	<b>Olga Pechanova (Bratislava, Slovakia)</b> <i>The Role of Nitric Oxide in Metabolic Syndrome: An Experimental Study</i>
11:25-11:50	<b>Paramjit Tappia (Winnipeg, Canada)</b> <i>High Fructose Diet Induces Cardiovascular Dysfunction</i>
11:50-12:15	<b>Florinela Cătoi (Cluj-Napoca, Romania)</b> <i>Obesity, Metabolic/Bariatric Surgery and Cardiovascular Disease</i>
12:15-12:40	<b>Cristian Mornoș (Timișoara, Romania)</b> <i>Epicardial Adipose Tissue Thickness as Independent Predictor in Coronary Artery Disease: Assessment by Echocardiography</i>
<b>11:00-13:20</b>	<b>Young Investigator Award Competition – <i>Iagnov Hall</i></b>
<b>Session chairs</b>	<b>Antonio Zaza (Italy), Suleiman Saadeh (UK), Michael Czubryt (Canada)</b>
11:00-11:20	<b>Jovana Bradic (Kragujevac, Serbia)</b> <i>Gallium Verum Extract As A Novel Cardioprotective Agent Against Doxorubicin-Induced Cardiotoxicity In Rats</i>
11:20-11:40	<b>Bogdan Halațiu (Târgu-Mureș, Romania)</b> <i>Interleukin-8 Inhibition – A Possible Pathway to Reduce Hemodynamic Complications in Post-Coronary Artery Bypass Grafting Surgery Patients</i>
11:40-12:00	<b>Leto Luana Riebel (Oxford, UK)</b> <i>Human In Silico Trials to Evaluate the Safety of Regenerative Cell Therapy</i>
12:00-12:20	<b>Arnela Saljic (Copenhagen, Denmark)</b>

	<i>Atrial Fat Infiltration Post Myocardial Infarction in a Göttingen Minipig Model of Obesity</i>
12:20- 12:40	<b>Mélotie Schneider (Copenhagen, Denmark)</b> <i>Metformin Reduces Atrial Fibrillation Inducibility in Horses</i>
12:40- 13:00	<b>Leila Topal (Szeged, Hungary)</b> <i>Increased Arrhythmia Susceptibility Associated With Cardiac Remodelling Following Vigorous Endurance Training in a Canine Athlete's Heart Model</i>
13:00- 13:20	<b>Noemi Toth (Charleston, USA)</b> <i>Calcium Signalling Consequences of Calcium Release Deficiency Associated Ryr2-S4938F and Ryr2-I4855M Mutations Expressed in HiPSC-CMs</i>
<b>13:00-14:00</b>	<b>Lunch Break</b> (lunch boxes provided) <b>Work Lunch for IACS Officials in Petru Drăgan Hall</b>
14:00-15:30	<b>Session 12 – Cardiovascular Dysfunction Due to Toxicity</b> <b><i>Aula Magna Hall</i></b>
<b>Session chairs:</b>	<b>Lorrie Kirshenbaum (Canada), Theodora Angoulvant (France)</b>
14:00-14:25	<b>Lorrie Kirshenbaum (Winnipeg, Canada)</b> <i>TRAF2-NF-kB Signaling in Doxorubicin Cardiomyopathy</i>
14:25-14:50	<b>Dinender K. Singla (Orlando, USA)</b> <i>Exosomes Ameliorates Doxorubicin-Induced Cardiomyopathy</i>
14:50-15:15	<b>Theodora Angoulvant (Tours, France)</b> <i>Immune Checkpoint Inhibitors-Related Myocarditis</i>
15:15-15:30	<b>Stojanovic Aleksandra (Kragujevac, Serbia)</b> <i>The Increased Expression of Extracellular Vesicles In Patients With Rheumatoid Arthritis: Novel Potential Biomarker For Disease Monitoring?</i>
	<b>Symposium: Cardiometabolic Alterations and Regulation of the Associated Pathways in Mammalian Heart Function and Regeneration II – Iagnov Hall</b>
<b>Session chairs:</b>	<b>Belma Turan (Turkey), Dinender Singla (USA)</b>
14:00-14:20	<b>Ebru Arioglu-Inan (Ankara, Turkey)</b> <i>Diabetic Heart And The Effects of Antidiabetic Drugs On Cardiac Function</i>
14:20-14:40	<b>Gizem Kayki-Mutlu (Ankara, Turkey)</b> <i>The Metabolic Roles of GRK2 in Cardiac Pathologies</i>
14:40-15:00	<b>Asena Gökçay Canpolat (Ankara, Turkey)</b> <i>Glucose Lowering Therapies for Cardiovascular Risk Reduction in Diabetes Mellitus</i>
15:00-15:20	<b>Firat Akat (Ankara, Turkey)</b> <i>The Roles of Sirtuins and K-Acetylation in Metabolic Syndrome Associated Heart Remodeling</i>
<b>15:30-16:00</b>	<b>Coffee Break</b>
16:00-17:15	<b>Session 13 – Translational Approaches in Cardiac Arrhythmias</b> <b><i>Aula Magna Hall</i></b>
<b>Session chairs:</b>	<b>Norbert Jost (Hungary), Viviana Ivan (Romania)</b>
16:00-16:25	<b>Belma Turan (Ankara, Turkey)</b> <i>The Electrotonic Modulation in Mixed-Mode Electrical Conduction Can Be a Novel Approach for SQT-Characterized Cardiac Remodelling</i>

16:25-16:50	<b>Norbert Jost (Szeged, Hungary)</b> <i>Comparative Study of the Rapid (IKr) and Slow (IKs) Delayed Rectifier Potassium Currents in Undiseased Human, Dog, Rabbit and Guinea Pig Cardiac Ventricular Preparations</i>
16:50-17:15	<b>Viviana Ivan (Timișoara, Romania)</b> <i>Antiarrhythmic Effect of Metabolic Therapy: The Role of Late Potentials In Risk Assessment</i>
16:00-17:15	<b>Session 14 – Natural Compounds in Cardiovascular Protection</b> <i>Senate Hall</i>
<b>Session chairs:</b>	<b>Jerzy Beltowski (Poland), Alina Pârvu (Romania)</b>
16:00-16:25	<b>Miloš Stojiljković (Banja Luka, Bosnia &amp; Herzegovina)</b> <i>Antioxidative Capacity of Pomegranate Peel Extracts: Results of In Vitro and In Vivo Studies</i>
16:25-16:50	<b>Jerzy Beltowski (Lublin, Poland)</b> <i>Green Tea Extract Improves Vasodilating Effect of Insulin on Resistance Arteries in Rats with Metabolic Syndrome By Converting H<sub>2</sub>S to Polysulfides</i>
16:50-17:15	<b>Alina Pârvu (Cluj-Napoca, Romania)</b> <i>Cardioprotective Effects of Mahonia Aquifolium Extracts</i>
<b>17:15-18:30</b>	<b>POSTER SESSION II (Sport Hall)</b> <b>Chairs: Devendra Agrawal (USA), Zoltán Papp (Hungary), Vladimir Zivkovic (Serbia)</b>
<b>20:00-24:00 GALA DINNER &amp; AWARDS CEREMONIES (bus transfer provided)</b>	
<b>DAY 4 (October 7, 2023)</b>	
<b>09:00-10:40</b>	<b>Session 15 – Novel Targets and Therapies in Cardiovascular Diseases: What Animal Models Have Taught Us?</b> <i>Aula Magna Hall</i>
<b>Session chairs</b>	<b>Ivan Srejovic (Serbia), Oana Aburel (Romania)</b>
09:00-09:25	<b>Melanie Hezzel (Bristol, UK)</b> <i>A One Health Approach to Cardiovascular Research – What Can Dogs Teach Us About Heart Disease?</i>
09:25-09:50	<b>Slavica Mutavdzin Krneta (Belgrade, Serbia)</b> <i>Effects of Vitamin B6 and Folic Acid on the Cardiovascular System of Rats with Streptozotocin-Induced Diabetes Mellitus</i>
09:50-10:15	<b>Vladimir Zivkovic (Kragujevac, Serbia)</b> <i>The Effects of Different Exercise Types on a Rat Model of Myocardial Ischemia/Reperfusion Injury</i>
10:15-10:40	<b>Ivan Srejovic (Kragujevac, Serbia)</b> <i>The Effects of L-Glutamate on Heart Function, Morphology and Redox Balance in Rats</i>
<b>09:00-10:55</b>	<b>Session 16 – Novel Biomarkers, Therapeutic Targets and Unusual Cases: What Humans Have Taught Us?</b> <i>Senate Hall</i>
<b>Session chairs</b>	<b>Isidora Milosavljevic (Serbia), Caius Streian (Romania)</b>
09:00-09:25	<b>Manuela Ciocoiu (Iași, Romania)</b>

	<i>The Development of Aortic Wall Aneurysms: Insights Into Molecular and Cellular Mechanisms</i>
09:25-09:40	<b>Adrian Apostol (Timișoara, Romania)</b> <i>RAS Inhibition Therapy in Dialized Patients and the Effects on Positive Remodelling</i>
09:40-09:55	<b>Caius Streian (Timișoara, Romania)</b> <i>An Unusual Form of Left Ventricular Tumor</i>
09:55-10:10	<b>Ana Lascu (Timișoara, Romania)</b> <i>Concurrent Causes For Acute Severe Right Ventricular Failure In An Apparently Healthy Patient</i>
10:10-10:25	<b>Sonia Rațiu (Timișoara, Romania)</b> <i>Vitamin D Mitigates Oxidative Stress in Varicose Veins Explants From Obese and Non-Obese Patients</i>
10:25-10:40	<b>Răzvan Adrian Bertici (Timișoara, Romania)</b> <i>Evolution and New Etiological Trends in Patients With Pulmonary Arterial Hypertension</i>
<b>10:45-11:00</b>	<b>Closing Remarks (Aula Magna)</b>
<b>11:30-</b>	<b>Social program</b>

### Social Program

**Welcome Reception** will take place at the meeting venue, “Victor Babeș” University of Medicine and Pharmacy of Timișoara, E.Murgu Sq., nr.2 Timișoara, Romania, on Wednesday, October 4.

**Gala Dinner** will be organized on Friday, October 6. Bus transportation will be arranged.

**Other social events** will be available on Saturday, October 7, after the end of the meeting. Further information will be provided on-site.

<b>17:15 - 18:30</b>	<b>POSTER SESSION I (Sport Hall, October 5)</b>
<b>Session chairs</b>	<b>Thomas Jespersen (Denmark), Péter Bencsik (Hungary), Miloš Stojiljković (Bosnia &amp; Herzegovina)</b>

1. **Enache Alexandra (Timișoara, Romania)**  
*Molecular Autopsy in Long Qt Syndrome in Sudden Unexplained Death Cases*
2. **Bitay Gergő (Szeged, Hungary)**  
*Investigation of Action Potential and Ca<sup>2+</sup> Transient Alternans in Canine Athlete's Heart Model*
3. **Besher Abual'anaz (Winnipeg, Canada)**  
*Periostin Knock Out Is Causal to Differential Responses Among Male and Female Mice: Cardiac Extracellular Matrix Proteins and Survival*
4. **Haugaard Simon Libak (Copenhagen, Denmark)**  
*Metformin Attenuates Human Atrial Fibroblast Activation*
5. **Bogdan Carina (Timișoara, Romania)**  
*The Heart-Covid Connection: Autonomic Dysfunction - Heart Rate Variability and Atrial Fibrillation*
6. **Božidar Pindović (Kragujevac, Serbia)**  
*The Effects of Hyperbaric Oxygenation and Insulin Treatment on the Myocardial Function and Oxidative Stress in Diabetic Rats*
7. **Demeter-Haludka Vivien (Szeged, Hungary)**  
*Molecular Mechanisms Behind the Late Cardioprotective Effects of Inorganic Nitrites*
8. **Enyedi Enikő Edit (Debrecen, Hungary)**  
*Assessment of Factors Deceptively Lowering ACE Activity*
9. **Ionică Loredana (Timișoara, Romania)**  
*SGLT2 Inhibitors Reduce Monoamine Oxidase Expression and Oxidative Stress in Human Atrial Tissue: A Novel Off-Target Class Effect*
10. **Knudsen Rikke (Copenhagen, Denmark)**  
*Fibrosis in the Heart of The Most Commonly Used Animal Models in Atrial Fibrillation Research – A Comparative Study*
11. **Déri Szilvia (Szeged, Hungary)**  
*A Possible Explanation for the Low Penetrance of Pathogenic Kcnel Variants in Long QT Syndrome Type 5*
12. **Bîcă Paul (Timișoara, Romania)**  
*Platelet Mitochondrial Respiratory Dysfunction In Sepsis and Covid-19 Is Alleviated by Cell-Permeable Succinate*

- 13. Aiman Mohammed (Szeged, Hungary)**  
*Hesperetin Decreases the Repolarization Reserve and Inhibits the Slow Delayed Rectifier Potassium Current (I<sub>ks</sub>) in Dog And Rabbit Cardiac Ventricular Muscle Preparations and Isolated Myocytes - A Proarrhythmic Candidate*
- 14. Saljic Arnela (Copenhagen, Denmark)**  
*Atrial Fat Infiltration Post Myocardial Infarction in a Göttingen Minipig Model of Obesity*
- 15. Bețiu Alina (Timișoara, Romania)**  
*Assessment of Drug-Induced Mitochondrial Toxicity in Human Platelets Isolated from Buffy-Coat*
- 16. Sárkány Fruzsina (Debrecen, Hungary)**  
*Investigation of the Effects of the Next-Generation Myosin Inhibitor Aficamten on Canine Left Ventricular Isolated Cardiomyocytes*
- 17. Suhov Loredana (Timișoara, Romania)**  
*Thrombophilia and Venous Thromboembolism in Young Patients*
- 18. Szabó Attila Ádám (Debrecen, Hungary)**  
*Investigation of the Biomarker Role of Angiotensin-Converting and Chitotriosidase Enzymes in Various Inflammatory Diseases*
- 19. Vajic Una-Jovana (Belgrade, Serbia)**  
*Effects of Chronic Supplementation With Urtica Dioica L. Leaf Extract And Chlorogenic Acid on Hemodynamic and Biochemical Parameters in Spontaneously Hypertensive Rats*
- 20. Vlădeanu Maria Cristina (Iași, Romania)**  
*Angiotensin Converting Enzyme Gene D-Allele and Stent Restenosis: A Tangled Story - Case Presentation*
- 21. Sandu Oana (Timișoara, Romania)**  
*Pulmonary Thromboembolism in Adults Under 50 Years Old*
- 22. Karanović Danijela (Belgrade, Serbia)**  
*Natural Versus Synthetic Antioxidant Supplementation of Losartan Treatment in an Experimental Model of Hypertension and Chronic Kidney Disease: Is Together Better?*
- 23. Dăniluc Larissa (Timișoara, Romania)**  
*Chemotherapy - Focus on the Mechanisms of Cardiotoxicity*



<b>17:15 - 18:30</b>	<b>POSTER SESSION II (Sport Hall, October 6)</b>
<b>Session chairs</b>	<b>Devendra Agrawal (USA), Zoltán Papp (Hungary), Vladimir Zivkovic (Serbia)</b>

- 24. Kezia Jerltorp (Copenhagen, Denmark)**  
*Electrophysiological Characterisation of Indomethacin in a Porcine Model of Obstructive Sleep Apnea*
- 25. Soșdean Raluca (Timișoara, Romania)**  
*Role of Monoamine Oxidase in the Pathogenesis of Severe Mitral Regurgitation and The Possible Link With The Patients' Comorbidities*
- 26. Bajic Zorislava (Banja Luka, Bosnia and Herzegovina)**  
*Cardioprotective Effects of Pomegranate Peel Extract in Takotsubo-Like Myocardial Injury in Rats*
- 27. Dannesboe Johs (Copenhagen, Denmark)**  
*Understanding Deadly Intravenous Paracetamol-Induced Hypotension*
- 28. Đorđe Đukanović (Banja Luka, Bosnia and Herzegovina)**  
*The Role of TRPA1 Channels in Regulation of the Vascular Tone - 3D QSAR Modeling with Design of Novel TRPA1 Agonists*
- 29. Mariș Mihaela-Ioana (Timișoara, Romania)**  
*Buerger's Disease With Upper Limbs Ischemia in a Female Patient*
- 30. Nikolic Marina (Kragujevac, Serbia)**  
*mTORC1 Activation Is Essential for Sacubitril/Valsartan Stimulation of Subcutaneous White Adipose Tissue Browning*
- 31. Baba Mirela (Timișoara, Romania)**  
*Crosstalk Between Early Vascular Aging, Nonalcoholic Fatty Liver Disease and Insulin Resistance in Patients with Cardiovascular Risk Factors*
- 32. Canpolat Gökçay Asena (Ankara, Turkey)**  
*The Significance of Body Fat Index and Other Indicators in Identifying Metabolic Subtypes*
- 33. Milivojac Tatjana (Banja Luka, Bosnia and Herzegovina)**  
*Ursodeoxycholic Acid Attenuates Systemic and Liver Inflammation Induced by LPS In Rats*
- 34. Ciubotaru Paul-Gabriel (Timișoara, Romania)**  
*Is a Patient With Hemophilia Protected Against Ischemia?*
- 35. Todor Ivanka Marian (Timișoara, Romania)**  
*Immunotherapy-Mediated Cardiotoxicity in a Patient With Metastatic Melanoma*
- 36. Moroz Simina (Timisoara, Romania)**

*The Influence of The Relative Parietal Thickness on The Post-Interventional Hemoglobin Value in Aortic Stenosis After TAVR*

**37. Maličević Uglješa (Banja Luka, Bosnia & Herzegovina)**

*Levosimendan Attenuates Lung Injury in Intestinal Ischemia-Reperfusion Model In Rats*

**38. Goje Iacob Daniel (Timișoara, Romania)**

*Dynamic Right Ventricular Obstruction Complicating Laparoscopic Cholecystectomy in a Patient With Known Atrial Myxoma*

**39. Kohistani Mosk (Szeged, Hungary)**

*The Influence of Ulcerative Colitis on Myocardial Infarct Size in a Co-Morbid Model: The Role of Immuno-Cardiovascular Disease Research*

**40. Nissen Sarah Dalgas (Copenhagen, Denmark)**

*The Role of M2r-IK,Ach Pathway in the Genesis of Second-Degree Atrioventricular Block in Horses*

**41. Andjic Marijana (Kragujevac, Serbia)**

*Wound Healing Effects of an Ointment Containing Helichrysum Italicum Essential Oil*

**42. Buriman Darius (Timișoara, Romania)**

*Characterization of Changes in Platelet Mitochondrial Respiration Pre- and Post-Cardiopulmonary Bypass*

**43. Pintér Jenő Antal (Szeged, Hungary)**

*Altered Cardiac Repolarization Associated With Cellular Electrophysiological Remodeling Following Chronic Testosterone Administration in a Large Animal Model*

**44. Başak Neslihan (Ankara, Turkey)**

*Mitochondrial Dysfunction in iPSC-derived Ventricular Cardiomyocytes in Spinal Muscular Atrophy*

**45. Kocovic Aleksandar (Kragujevac, Serbia)**

*Assessing the Cardioprotective Potential of Usnic Acid in Mitigating Doxorubicin-Induced Cardiotoxicity in Rats*

**46. Brăescu Laurentiu (Timișoara, Romania)**

*Effects of Statin Therapy on Epicardial Adipose Tissue: Focus on Oxidative Stress*

**47. Bitay Gergő (Szeged, Hungary)**

*Investigation of the Action Potential Alternans in Human Heart Failure*

## Officers and Executive Council of the International Academy of Cardiovascular Sciences – European Section

**President:** Vladimir Lj. Jakovljevic, Kragujevac, Serbia

**Past President:** András Varró, Szeged, Hungary

**Vice President:** Tatiana Ravingerova, Bratislava, Slovakia

**Vice President:** Danina M. Muntean, Timișoara, Romania

**Secretary General:** István Baczkó, Szeged, Hungary

### Executive Council

Adriana Adameova, Slovakia

Dobromir Dobrev, Germany

Vladimir Jakovljevic, Serbia

Zoltán Papp, Hungary

Monika Bartekova, Slovakia

Thomas Jespersen, Denmark

Jerzy Beltowski, Poland

Saadeh Suleiman, UK

Frantisek Kolar, Czech Republic

Belma Turan, Turkey

Dragan M. Djuric, Serbia

Ferenc Gallyas, Hungary

Petr Ostadal, Czech Republic

Ranko Škrbić, The Republic of Srpska, Bosnia and Herzegovina

Miloš Stojiljković, The Republic of Srpska, Bosnia and Herzegovina



***ABSTRACTS OF THE LECTURES***

## **OSTEOSARCOPENIC ADIPOSITY - IMPLICATIONS FOR CARDIOMETABOLIC DISORDERS**

Vesna Vučić

*Group for Nutritional Biochemistry and Dietology, Centre of Research Excellence in Nutrition and Metabolism, Institute for Medical Research, National Institute of Republic of Serbia, University of Belgrade, Belgrade, Serbia*

Body composition impairments, encompassing concurrent deterioration of bone, muscle, and adipose tissue, are defined as osteosarcopenic obesity/adiposity (OSO/OSA). The objective of this scoping review was to evaluate human studies addressing OSA in relation to cardiovascular and metabolic diseases. The search was conducted in PubMed, Scopus, and Web of Science databases to examine relevant articles published until August 2023, using the MeSH terms in the search strategy. Only studies published in English and conducted in adult humans with cardiometabolic disorders (dyslipidemia, hypertension, metabolic syndrome, cardiovascular disease - CVD) were included. A total of  $n = 272$  articles were retrieved from all three databases. After removing duplicates and articles unrelated to the topic, only  $n = 11$  studies met the inclusion criteria. Six studies were conducted in Asia, one in the USA, one in Brazil and three in the EU. Eight studies were cross-sectional, one was nested case-control and one retrospective study. Additionally, we identified only one interventional study in obese postmenopausal women supplemented with calcium and vitamin D or with dairy products. The studies included 16220 participants (60-4500). In general, a significantly higher prevalence of OSA was found in patients with CVD, hypertension, dyslipidemia, insulin resistance, non-alcoholic fatty liver disease and metabolic syndrome. Higher levels of CRP and other biomarkers of chronic inflammation were also detected in persons with OSA. The only interventional study has shown significant improvement in lipid profile, leptin, adiponectin and hypertension in the intervention groups. In summary, OSA is a frequent comorbidity in patients with cardiovascular and/or metabolic disorders. More studies are warranted to establish a causal relationship between OSA and cardiometabolic diseases.